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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,309	08/17/2001	Tetsuo Nakamura	Q65828	3931

7590

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EXAMINER

CHEA, THORL

ART UNIT

PAPER NUMBER

1752

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,309

Applicant(s)

NAKAMURA ET AL.

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,11 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 5-9 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The invention as originally filed fails to disclose X^{61} represent an oxygen atom, a sulfur atom, a selenium atom, a nitrogen atom or a carbon atom; and X^{62} represent an oxygen atom, a sulfur atom, a selenium atom, a tellurium, a nitrogen atom or a carbon atom. The exclusion of tellurium from the definition of X^{61} create a new concept, and raises the issue of new matter.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4, 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Y^{52} in claims 11 and 13 is indefinite since the compound of formula (XX) contains no Y^{52} .

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2, 4, 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Usagawa et al, US Patent No. 5,057,406 (Usagawa).

Usagawa disclosed a silver halide material containing dye within the scope of the claimed invention. See the compound of Usagawa in column 35 which contains a furan group vs compound of formula (I) of claims 1, 4 wherein Y is furan ring group; Z is an atomic group necessary to form 5-membered nitrogen atom ring, R is a substituted alkyl group and p is 0; compound in formula 4 when X⁵¹ and X⁵² is a carbon atom. The compound of Usagawa in column 11, compounds 31-34 vs the compound (XXX) in claim 5 Y⁶¹ is thiophene ring, X⁶¹ and X⁶² is carbon atom; R⁶¹ and R⁶² is a substitute alkyl group. Usagawa discloses the compound containing thiophene ring and furan

within the scope of the claimed invention. Therefore, the invention as claimed is anticipated by Usagawa. Alternatively, it would have been obvious to use an alternative compound taught in Usagawa with an expectation of achieving highly useful material.

8. Claims 5-9 are rejected under under 35 U.S.C. 103(a) as obvious over either JP62-204250 (JP'250) or JP61-277950 (JP'950) in view of either Parton et al (Parton) or Hioki et al (Hioki) .

JP'250 and JP'950 each disclose the compound of the claimed invention, which contains a thiophene ring which is unsubstituted or substituted with halogen atom (chlorine). See JP'250 page 311, compounds 16-19; 20-22 and JP'950 page 576, compounds 102, 103; page 577, compounds 104-112. Both JP'250 and JP'950 fail to disclose the use of oxygen atom, a sulfur atom, a selenium atom, a nitrogen atom or a carbon atom in association within the nucleus containing a thiophene ring claimed in the present invention. However, the tellurium atom has been known as equivalence or analogues to oxygen atom, a sulfur atom, a selenium atom, a nitrogen atom or a carbon. Note for instance to Parton in column 2, lines 45-68 to column 3, lines 1-34 and Hioki in column 13, lines 11-68. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use oxygen atom, a sulfur atom, a selenium atom, a nitrogen atom or a carbon in lieu of tellurium atom with an expectation of provide a spectrally sensitizing dye with similar property.

9. Claims 11-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP61-277950 (JP'950). The JP'950 discloses the compound containing a pyrrole group on page 577, compound 112

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Therefore, JP'950 anticipates the invention as claimed. Alternatively, it would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the alternative compound taught therein with an expectation of achieving a highly useful material

10. Claims 5-9 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over P2000-63690 (P'690). See compound containing thiophene ring in columns 21-22, compounds D-1 to D-5; columns 23-24, D-6 to D-10; columns 25-26, D-11 to D-15; columns 27-54, D-16 to D-94; column 60, D-105; columns 61-62, D-106; columns 65-66; D-116 to D-118; column 69-70, D-129, D-130; columns 75-76, D-142 to D-146. The compound D-38 in columns 35-36 contains a thiophene ring substituted with chlorine atom.

The '690 document discloses the compound containing thiophene group claimed in the present claimed invention. Therefore, the invention as claimed is anticipated by P2000-63690. Alternatively, it would have been obvious to the worker of ordinary skill in the art at the invention was made to use the alternative compound taught therein with an expectation of achieving a highly useful material.

Response to Arguments

11. Applicant's arguments filed July 15, 2003 have been fully considered but they are not persuasive. The invention of claims 5-9 have been found obvious for the reason set forth in paragraph 8 above since the tellurium atom is equivalent to the oxygen atom, a sulfur atom, a selenium atom, a nitrogen atom or a carbon. The invention of claims 5-9 is either anticipated by, or alternatively found obvious over P2000-63690

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since the compound taught in the P'690 contains a thiophene group in association with selenium, sulfur, oxygen, nitrogen and carbon. Claims 11-13 is either anticipated by or found obvious over JP'950 such as presented in the paragraph 9 above. The gist of the claimed invention is the incorporation of the thiophene ring, the furan ring and the pyrrole ring associated with the methine dye. In the case wherein the dye is not anticipated by the prior art, it would have been obvious to the worker of ordinary skill in the art to modify the dye or to provide the dye with an improvement thereof such as modifying the ring associated with the dye to provide the dye having an light absorption within a desired wavelength.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (703)308-3498. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet C Baxter can be reached on (703)308-2303. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

tchea 
September 11, 2003


Thorl Chea
Primary Examiner
Art Unit 1752